

CLAIMS

1. A multi-layered tube composed of at least two layers, wherein at least one layer of said layers is a layer (I) made of a resin composition comprising 5 to 40 mass% of a polypropylene resin (a), and 95 to 60 mass% of at least one copolymer (b) selected from the group consisting of

a hydrogenated block copolymer (b1) obtained by hydrogenating a block copolymer formed of a polymer block (A) from a vinyl aromatic compound and an isoprene polymer block (B),

a hydrogenated block copolymer (b2) obtained by hydrogenating a block copolymer formed of a polymer block (A) from a vinyl aromatic compound and a polymer block (C) from isoprene and butadiene,

a hydrogenated block copolymer (b3) obtained by hydrogenating a block copolymer formed of a polymer block (A) from a vinyl aromatic compound and a butadiene polymer block (D), and

a hydrogenated copolymer (b4) obtained by hydrogenating a copolymer of a vinyl aromatic compound and butadiene, and

at least one layer of the remaining layer or layers is a layer (II) formed of a resin composition comprising 45 to 100 mass% of a polypropylene resin (a) and 55 to 0 mass% of the above copolymer (b), and

further wherein said layer (I) forms one layer of an inner layer and an outer layer and said layer (II) forms the other layer, or said layer (I) forms an intermediate layer and the layer (II) forms the inner layer and the outer layer.

2. The multi-layered tube of claim 1, where the tube is a dual layered tube, and said layer (I) forms an inner layer and said layer (II) forms an outer layer, or the layer (I) forms an outer layer and the layer (II) forms an inner layer.

3. The multi-layered tube of claim 2, wherein said dual layered tube has a layer (I)/layer (II) thickness ratio of 940 - 980/60 - 20.

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4. The multi-layered tube of any one of claims 1 to 3, wherein said layer (II) is a layer (II-1) formed of a resin composition containing 45 to 70 mass% of the polypropylene resin (a) and 55 to 30 mass% of the copolymer (b).

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5. The multi-layered tube of any one of claims 1 to 3, wherein said layer (II) is a layer (II-2) formed of a resin composition containing 70 to 100 mass% of the polypropylene resin (a) and 30 to 0 mass% of the copolymer (b).

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6. The multi-layered tube of claim 1, wherein the tube is a three-layered tube, and said layer (I) forms an intermediate layer and said layer (II) forms an inner layer and an outer layer.

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7. The multi-layered tube of claim 6, wherein the tube has an outer layer/intermediate layer/inner layer thickness ratio of 20 - 30/940 - 960/20 - 30.

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8. The multi-layered tube of claim 6 or 7, wherein said layer (II) is a layer (II-1) formed of a resin composition containing 45 to 70 mass% of the polypropylene resin (a) and 55 to 30 mass% of the copolymer (b).

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9. The multi-layered tube of any one of claims 6 to 8, wherein, in the said three-layered tube, said outer layer is a layer (II-1) formed of a resin composition containing 45 to 70 mass% of the polypropylene resin (a) and 55 to 30 mass% of the copolymer (b),

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said intermediate layer is the layer (I) formed of a resin composition containing 5 to 40 mass% of the

polypropylene resin (a) and 95 to 60 mass% of the copolymer (b), and

said inner layer is a layer (II-2) formed of a resin composition containing 70 to 100 mass% of the polypropylene resin (a) and 30 to 0 mass% of the copolymer (b).

10. The multi-layered tube of any one of claims 1 to 9, wherein said hydrogenated block copolymer (b1) has a vinyl aromatic compound component content of 10 to 40 mass%, the isoprene polymer block (B) has a 1,2-bond and 2,4-bond content of 10 to 75 mol%, and at least 70 % of carbon-carbon double bonds of the block copolymer (b1) are hydrogenated.

11. The multi-layered tube of any one of claims 1 to 9, wherein said hydrogenated block copolymer (b2) has a vinyl aromatic compound component content of 10 to 40 mass%, the polymer block (C) has an isoprene component/butadiene component weight ratio of 5/95 to 95/5 and a 1,2-bond and 3,4-bond content of 20 to 85 mol%, and at least 70 % of carbon-carbon double bonds of the block copolymer (b2) are hydrogenated.

12. The multi-layered tube of any one of claims 1 to 9, wherein said hydrogenated block copolymer (b3) has a vinyl aromatic compound component content of 10 to 40 mass%, the butadiene polymer block (D) has a 1,2-bond content of at least 30 mol%, and at least 70 % of carbon-carbon double bonds of the block copolymer (b3) are hydrogenated.

13. The multi-layered tube of any one of claims 1 to 12, wherein said vinyl aromatic compound is styrene.

14. The multi-layered tube of any one of claims 1 to 13, wherein said tube is a multi-layered tube for medical use.

15. The multi-layered tube of claims 14, wherein said

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tube is for forming a circuit for extracorporeal circulation.

16. The multi-layered tube of any one of claims 1 to 15, wherein the polypropylene resin (a) forming said layer (I) has a bending flexural modulus of 200 to 400 MPa and the polypropylene resin (a) forming said layer (II) has a flexural modulus of 500 to 900 MPa.

17. A medical device comprising the multi-layered tube
10 recited in any one of claims 1 to 16 and other member to which said multi-layered tube is connected.

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